USDA Forest Service-Savannah River (USFS-SR) Fiscal Year 2011 Savannah River Site Environmental Report

In support of the environmental stewardship mission, USFS-SR manages the natural resources at the United States Department of Energy's (DOE) Savannah River Site (SRS). Operating under an interagency agreement with DOE-Savannah River Operations Office (DOE-SROO), USFS-SR follows SRS Strategic Plan goals and objectives to implement the *United States Department of Energy Natural Resources Management Plan for the Savannah River Site*.

Evaluated the effects of management on the environment

Teaming with a number of universities, as well as the USDA Forest Service Research Stations, USFS-SR has added applied knowledge to the environmental management of the SRS.

- USFS-SR completed final reports on natural and human produced radiological materials in prescribed fire fuels and smoke. The data demonstrated that radiological exposures are well below exposure standards for on-Site emergency responders and the public. The journal "Atmospheric Environment", a journal that publishes high quality research in the field of air pollution and its societal impacts, has accepted the report for publication.
- The journal "Forest Ecology and Management" has accepted a series of USFS-SR papers for publication. This journal "publishes scientific articles that link forest ecology with forest management and that apply biological and ecological knowledge to the management and conservation" of managed and natural forests. The series describes the assessment of the wildland fire hazard at SRS under extreme weather conditions and alternative fire behavior fuel models. The overall wildland fire hazard is classed as low to moderate, with limited areas of high hazard based upon flame length and fire rate of spread. The data from the 2010 inventory will be used to update the assessment in 2012 for SRS.
- USFS-SR completed all vegetation data layers relating to the 2009 Light Detection and Ranging (LIDAR) over-flight in 2010 and 2011, and then made the information available to Site organizations. The data will be used in 2012 to assess biomass-bioenergy fuel availability and quantify Red-cockaded woodpecker habitat conditions.

Demonstrated environmental management performance

USFS-SR maintained, improved and maximized the natural resources of the SRS habitat while meeting recovery population objectives for federally listed endangered species and species of conservation concern. An example of successful habitat management is the continued return of the endangered Red-cockaded woodpecker (RCW) from three active clusters in 1985 to 56 active clusters including 51 potential breeding groups in Fiscal Year (FY) 2011. An active cluster is a cluster of trees containing one or more active cavity (nest) trees. A potential breeding group is an adult female and adult male that occupy the same cluster, whether or not they are accompanied by a helper, attempt to nest, or successfully fledge young. In FY 2011, USFS-SR removed brush and small hardwood vegetation in 754 acres of the SRS longleaf pine forest, preferred RCW habitat. Additionally, USFS-SR applied prescribed fire, another means of habitat improvement, to 20,136 acres to not only reduce hazardous forest fuel, but to also remove midstory vegetation in the longleaf pine forest.

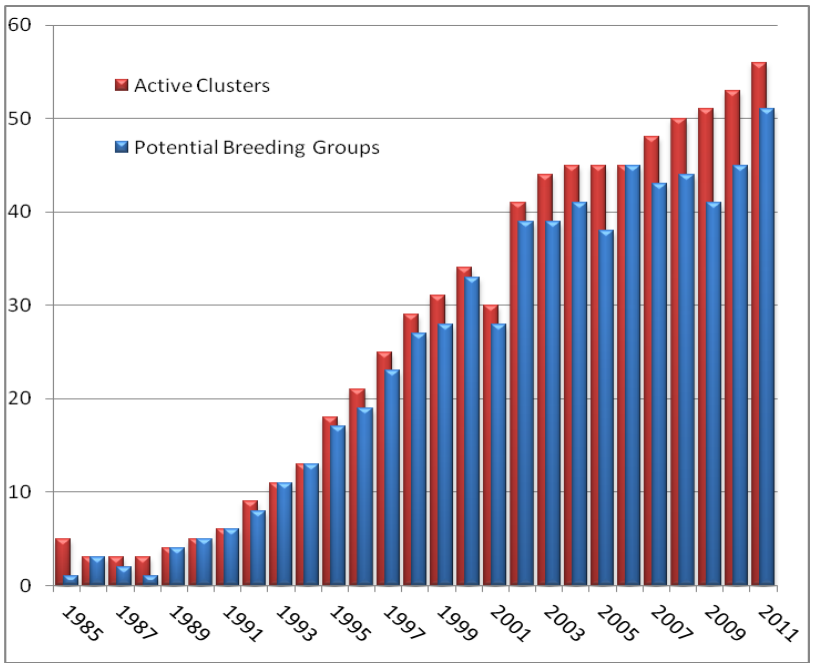

Figure of Active Clusters and Potential Breeding Groups from 1985 – 2011

Demonstrated environmental, occupational safety and health performance

Integrated Safety Management System (ISMS) results: USFS-SR submitted the required annual ISMS declaration to DOE-SR on October 21, 2010

Maintained infrastructure systems in a safe and environmentally sound state of operational readiness

USFS-SR suppressed 17 SRS wildland fire incidents ranging in size from 0.1 acres to 160 acres. USFS-SR has provided additional protection from wildland fire to SRS and those communities bordering the SRS by responding to three mutual aid fires that potentially threatened SRS, ranging in size from 2 – 145 acres.

USFS-SR maintained the SRS secondary roads, including blading and application of calcium chloride to reduce dust, and constructed one mile of secondary road in support of site activities. USFS-SR also maintained 27 miles of multipurpose trails, used primarily by SRS wellness programs. USFS-SR maintained 60 miles of SRS boundary fence and 30 miles of exterior boundary (discing).

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